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NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 MAR 15 WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 3 MAR 16 CASREACT coverage extended
NEWS 4 MAR 20 MARPAT now updated daily
NEWS 5 MAR 22 LWPI reloaded
NEWS 6 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 7 APR 02 JICST-EPLUS removed from database clusters and STN
NEWS 8 APR 30 GENBANK reloaded and enhanced with Genome Project ID field
NEWS 9 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 10 APR 30 CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS 11 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 12 MAY 01 New CAS web site launched
NEWS 13 MAY 08 CA/CAplus Indian patent publication number format defined
NEWS 14 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 15 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 16 MAY 21 TOXCENTER enhanced with BIOSIS reload
NEWS 17 MAY 21 CA/CAplus enhanced with additional kind codes for German patents
NEWS 18 MAY 22 CA/CAplus enhanced with IPC reclassification in Japanese patents
NEWS 19 JUN 27 CA/CAplus enhanced with pre-1967 CAS Registry Numbers
NEWS 20 JUN 29 STN Viewer now available
NEWS 21 JUN 29 STN Express, Version 8.2, now available
NEWS 22 JUL 02 LEMBASE coverage updated
NEWS 23 JUL 02 LMEDLINE coverage updated
NEWS 24 JUL 02 SCISEARCH enhanced with complete author names
NEWS 25 JUL 02 CHEMCATS accession numbers revised
NEWS 26 JUL 02 CA/CAplus enhanced with utility model patents from China
NEWS 27 JUL 16 CAplus enhanced with French and German abstracts
NEWS 28 JUL 18 CA/CAplus patent coverage enhanced

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

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COST IN U.S. DOLLARS

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ENTRY | TOTAL
SESSION |
|---------------------|---------------------|------------------|
| FULL ESTIMATED COST | 0.21 | 0.21 |

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FILE COVERS 1907 - 24 Jul 2007 VOL 147 ISS 5
FILE LAST UPDATED: 23 Jul 2007 (20070723/ED)

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=> s propylene and (propylene oxide)
189164 PROPYLENE
305 PROPYLENES
189263 PROPYLENE
(PROPYLENE OR PROPYLENES)
189164 PROPYLENE
305 PROPYLENES
189263 PROPYLENE
(PROPYLENE OR PROPYLENES)
1779482 OXIDE
346902 OXIDES
1877577 OXIDE
(OXIDE OR OXIDES)
35870 PROPYLENE OXIDE
(PROPYLENE(W)OXIDE)
35870 PROPYLENE AND (PROPYLENE OXIDE)

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=> s 11 and "hydrogen peroxide"
1004439 "HYDROGEN"
6017 "HYDROGENS"
1007792 "HYDROGEN"
("HYDROGEN" OR "HYDROGENS")
218445 "PEROXIDE"
47948 "PEROXIDES"
237304 "PEROXIDE"
("PEROXIDE" OR "PEROXIDES")
120174 "HYDROGEN PEROXIDE"
("HYDROGEN" (W) "PEROXIDE")
530 L1 AND "HYDROGEN PEROXIDE"
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=> s 12 and catalyst
769631 CATALYST

767042 CATALYSTS
983478 CATALYST
(CATALYST OR CATALYSTS)
L3 327 L2 AND CATALYST

=> s 13 and (fractionate or fractionated or fractioned)
2592 FRACTIONATE
468 FRACTIONATES
3039 FRACTIONATE
(FRACTIONATE OR FRACTIONATES)
56977 FRACTIONATED
876 FRACTIONED
L4 1 L3 AND (FRACTIONATE OR FRACTIONATED OR FRACTIONED)

=> s 13 and (distillation or distill)
58616 DISTILLATION
420 DISTILLATIONS
58770 DISTILLATION
(DISTILLATION OR DISTILLATIONS)
178157 DISTN
1792 DISTNS
178900 DISTN
(DISTN OR DISTNS)
196572 DISTILLATION
(DISTILLATION OR DISTN)
1345 DISTILL
488 DISTILLS
1819 DISTILL
(DISTILL OR DISTILLS)

L5 22 L3 AND (DISTILLATION OR DISTILL)

=> s 15 and continuous
437985 CONTINUOUS
L6 3 L5 AND CONTINUOUS

=> s 15 and wall
314877 WALL
139546 WALLS
404628 WALL
(WALL OR WALLS)

L7 0 L5 AND WALL

=> d 15 abs ibib

L5 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
AB Epoxidn. of propene is conducted by the steps, (a) reacting propene with hydrogen peroxide in the presence of methanol as solvent and a titanium zeolite catalyst and separating propylene oxide from the resulting reaction mixture to obtain a mixture (Ma) comprising methanol, water, at least one carboxylic acid having from 1 to 3 carbon atoms and at least one carbonyl compound having from 1 to 3 carbon atoms, wherein the carbonyl compound is an aldehyde or a ketone, (b) at least partially neutralizing the at least one carboxylic acid comprised in mixture (Ma) by adding a base to mixture (Ma) to obtain a mixture (Mb), ;(c) separating methanol from mixture (Mb) by distillation, (d) at least partially recycling the methanol obtained from (c) into (a).

ACCESSION NUMBER: 2007:729119 CAPLUS
TITLE: A process for epoxidizing propene
INVENTOR(S): Goebbel, Hans-Georg; Bassler, Peter; Teles, Joaquim Henrique; Rudolf, Peter; Mueller, Ulrich; Forlin, Anna; Schulz, Malte; Weidenbach, Meinolf
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; The Dow Chemical Company
SOURCE: PCT Int. Appl., 48pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2007074101 | A1 | 20070705 | WO 2006-EP69865 | 20061218 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, GT, HN, HR, ID, IL, IN, IS, JP, KE, KG, KM, KN,
KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM | | | | |
| PRIORITY APPLN. INFO.: | | | IT 2005-MI2491 | A 20051227 |
| | | | US 2005-775780P | P 20060223 |

=> d 15 2 abs ibib

L5 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
 A3 A process for the selective epoxidation of olefins into epoxides comprises
contacting the olefin (e.g., propylene) with an oxidant (e.g.,
hydrogen peroxide) in the presence of a Lewis acid
oxidation catalyst (e.g., methyltrioxorhenium), an organic base (e.g.,
pyridine or its N-oxide), in a solvent system comprising an organic
water-miscible solvent (e.g., methanol); and adding a pressurizing gas
(e.g., nitrogen) to increase the pressure, where olefin is further
dissolved in an organic solvent system to increase the selectivity and yield
of the desired epoxide (e.g., propylene oxide).

ACCESSION NUMBER: 2007:458342 CAPLUS
 DOCUMENT NUMBER: 146:441653
 TITLE: Process for selective catalytic epoxidation of olefins
into epoxides
 INVENTOR(S): Busch, Daryle H.; Subramaniam, Bala; Lee, Hyun-Jin;
Shi, Tie-Pan
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 15pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| US 2007093666 | A1 | 20070426 | US 2006-586061 | 20061025 |
| WO 2007050678 | A2 | 20070503 | WO 2006-US41617 | 20061025 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, GT, HN, HR, ID, IL, IN, IS, JP, KE, KG, KM, KN,
KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, | | | | |

KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.: US 2005-729941P P 20051025
OTHER SOURCE(S): CASREACT 146:441653

=> d 16 1-3 abs ibib

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
AB A process for the continuous production of an olefinic oxide such as propylene oxide by direct catalytic oxidation of an olefin with hydrogen peroxide. The process involves successive reaction, distillation, decomposition, phase separation, condensation and distillation with recycle of various streams to provide improved catalyst life and reaction selectivity.

ACCESSION NUMBER: 2002:142693 CAPLUS

DOCUMENT NUMBER: 136:184271

TITLE: Process for the continuous production of an olefinic oxide

INVENTOR(S): Forlin, Anna; Paparatto, Giuseppe; Tegon, Paolo

PATENT ASSIGNEE(S): Enichem S.p.A., Italy

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|-----------------|----------|
| WO 2002014298 | A1 | 20020221 | WO 2001-EP9334 | 20010813 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| IT 2000MI1882 | A1 | 20020211 | IT 2000-MI1882 | 20000811 |
| IT 1318680 | B1 | 20030827 | | |
| CA 2416554 | A1 | 20020221 | CA 2001-2416554 | 20010813 |
| AU 200193763 | A | 20020225 | AU 2001-93763 | 20010813 |
| EP 1313722 | A1 | 20030528 | EP 2001-974175 | 20010813 |
| EP 1313722 | B1 | 20040630 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001013261 | A | 20040113 | BR 2001-13261 | 20010813 |
| AT 270282 | T | 20040715 | AT 2001-974175 | 20010813 |
| JP 2004525073 | T | 20040819 | JP 2002-519440 | 20010813 |
| ES 2219565 | T3 | 20041201 | ES 2001-1974175 | 20010813 |
| IN 2003CN00241 | A | 20050408 | IN 2003-CN241 | 20030210 |
| US 2004181081 | A1 | 20040916 | US 2003-344441 | 20031027 |
| US 7138534 | B2 | 20061121 | | |

PRIORITY APPLN. INFO.: IT 2000-MI1882 A 20000811
WO 2001-EP9334 W 20010813

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

AB A continuous process for the epoxidn. of olefins (e.g., methyloxirane from propylene) with hydrogen peroxide using a product-stream predistn. step and unit is described and a process flow diagram presented.

ACCESSION NUMBER: 2001:581493 CAPLUS
 DOCUMENT NUMBER: 135:137842
 TITLE: Process for the epoxidation of olefins using a product-stream predistillation step and unit
 INVENTOR(S): Hofen, Willi; Thiele, Georg; Moller, Alexander
 PATENT ASSIGNEE(S): Degussa A.-G., Germany
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| EP 1122248 | A1 | 20010808 | EP 2000-102544 | 20000207 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO | | | | |
| CA 2399129 | A1 | 20010809 | CA 2001-2399129 | 20010203 |
| WO 2001057010 | A1 | 20010809 | WO 2001-EP1166 | 20010203 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| BR 2001008063 | A | 20021105 | BR 2001-8063 | 20010203 |
| EP 1254126 | A1 | 20021106 | EP 2001-911586 | 20010203 |
| EP 1254126 | B1 | 20030702 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| AT 244231 | T | 20030715 | AT 2001-911586 | 20010203 |
| JP 2003521544 | T | 20030715 | JP 2001-556860 | 20010203 |
| ES 2202281 | T3 | 20040401 | ES 2001-1911586 | 20010203 |
| ZA 2002005200 | A | 20030929 | ZA 2002-5200 | 20020627 |
| NO 2002003553 | A | 20020725 | NO 2002-3553 | 20020725 |
| US 2003114694 | A1 | 20030619 | US 2002-203184 | 20021004 |
| US 6646141 | B2 | 20031111 | | |

PRIORITY APPLN. INFO.: EP 2000-102544 A 20000207
 WO 2001-EP1166 W 20010203

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
 AB In the title process, C3H6 [115-07-1] is epoxidized by a crude solution of EtC(O)OOH [4212-43-5], prepared from H2O2 and EtCO2H in the presence of very small amts. of strongly acidic catalysts with continuous azeotropic distillation of water. Thus, adding 260 g/h 50% ClCH2CH2Cl solution of EtCO2H and 40.3 g/h 70.7% H2O2 containing 0.33% H2SO4 and 0.5% bipicolinic acid to a reactor held at 90° with azeotropic distillation of H2O gave a 93.5% yield of EtC(O)OOH as a 25.1% solution. This solution was added at 281 g/h together with 98.3 g/h C3H6 to a reactor held at 50°/10 bar to give 350 g/h 13.2% propylene oxide [75-56-9] solution, a yield of 98.3%.

ACCESSION NUMBER: 1983:17188 CAPLUS
 DOCUMENT NUMBER: 98:17188
 TITLE: Continuous preparation of propylene oxide
 INVENTOR(S): Lecoq, Jean Claude; Pralus, Michele; Schirrmann, Jean Pierre
 PATENT ASSIGNEE(S): Produits Chimiques Ugine Kuhlmann, Fr.
 SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------------------|------|----------|-----------------|------------|
| EP 61393 | A1 | 19820929 | EP 1982-400477 | 19820316 |
| EP 61393 | B1 | 19841031 | | |
| R: BE, CH, DE, FR, GB, IT, NL | | | | |
| FR 2502620 | A1 | 19821001 | FR 1981-5811 | 19810324 |
| FR 2502620 | B1 | 19831110 | | |
| ES 510697 | A1 | 19830201 | ES 1982-510697 | 19820323 |
| CA 1182122 | A1 | 19850205 | CA 1982-399119 | 19820323 |
| JP 57169477 | A | 19821019 | JP 1982-45725 | 19820324 |
| JP 02004223 | B | 19900126 | | |
| PRIORITY APPLN. INFO.: | | | FR 1981-5811 | A 19810324 |

=> s L3 AND DISTILLATION
 58616 DISTILLATION
 420 DISTILLATIONS
 58770 DISTILLATION
 (DISTILLATION OR DISTILLATIONS)
 178157 DISTN
 1792 DISTNS
 178900 DISTN
 (DISTN OR DISTNS)
 196572 DISTILLATION
 (DISTILLATION OR DISTN)

L8 21 L3 AND DISTILLATION

=> d 18 1-21 abs ibib

L8 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Epoxidn. of propene is conducted by the steps, (a) reacting propene with hydrogen peroxide in the presence of methanol as solvent and a titanium zeolite catalyst and separating propylene oxide from the resulting reaction mixture to obtain a mixture (Ma) comprising methanol, water, at least one carboxylic acid having from 1 to 3 carbon atoms and at least one carbonyl compound having from 1 to 3 carbon atoms, wherein the carbonyl compound is an aldehyde or a ketone, (b) at least partially neutralizing the at least one carboxylic acid comprised in mixture (Ma) by adding a base to mixture (Ma) to obtain a mixture (Mb), ;(c) separating methanol from mixture (Mb) by distillation, (d) at least partially recycling the methanol obtained from (c) into (a).

ACCESSION NUMBER: 2007:729119 CAPLUS
 TITLE: A process for epoxidizing propene
 INVENTOR(S): Goebbel, Hans-Georg; Bassler, Peter; Teles, Joaquim Henrique; Rudolf, Peter; Mueller, Ulrich; Forlin, Anna; Schulz, Malte; Weidenbach, Meinolf
 PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; The Dow Chemical Company
 SOURCE: PCT Int. Appl., 48pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2007074101 | A1 | 20070705 | WO 2006-EP69865 | 20061218 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, | | | | |

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
 GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
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 MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
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 TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: IT 2005-MI2491 A 20051227
 US 2006-775780P P 20060223

L8 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB A process for the selective epoxidn. of olefins into epoxides comprises contacting the olefin (e.g., propylene) with an oxidant (e.g., hydrogen peroxide) in the presence of a Lewis acid oxidation catalyst (e.g., methyltrioxorhenium), an organic base (e.g., pyridine or its N-oxide), in a solvent system comprising an organic water-miscible solvent (e.g., methanol); and adding a pressurizing gas (e.g., nitrogen) to increase the pressure, where olefin is further dissolved in an organic solvent system to increase the selectivity and yield of the desired epoxide (e.g., propylene oxide).

ACCESSION NUMBER: 2007:458342 CAPLUS

DOCUMENT NUMBER: 146:441653

TITLE: Process for selective catalytic epoxidation of olefins into epoxides

INVENTOR(S): Busch, Daryle H.; Subramaniam, Bala; Lee, Hyun-Jin; Shi, Tie-Pan

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 15pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| US 2007093666 | A1 | 20070426 | US 2006-586061 | 20061025 |
| WO 2007050678 | A2 | 20070503 | WO 2006-US41617 | 20061025 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
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TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
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CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.: US 2005-729941P P 20051025

OTHER SOURCE(S): CASREACT 146:441653

L8 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB A process for the epoxidn. of an olefin (e.g., propylene into propylene oxide) comprises: (A) reacting the olefin with hydrogen peroxide in the presence of methanol as a solvent in at least two reaction stages to obtain a mixture (M-a) comprising the olefin oxide, unreacted olefin, methanol, and water, where between at least two reaction stages, the olefin oxide is separated by distillation; (B) separating unreacted olefin from the mixture (M-a) by distillation to

obtain a mixture (M-bi) comprising at least 80% of olefin and a mixture (M-bii) comprising methanol, water, and $\geq 7\%$ of an olefin oxide; (C) separating the olefin oxide from the mixture (M-bii) in at least one distillation stage to obtain a mixture (M-ci) comprising $\geq 99\%$ of an olefin oxide and a mixture (M-cii) comprising water and $\geq 55\%$ of methanol; (D) separating methanol from the mixture (M-cii) in at least one distillation stage to obtain a mixture (M-di) comprising $\geq 85\%$ of methanol and $\leq 10\%$ of water, and a mixture (M-dii) comprising $\geq 90\%$ of water; where a vapor top stream (Td) obtained from at least one distillation column used in (D) vapor top stream (Td) comprising $\geq 85\%$ methanol, is used to operate at least partially at least one vaporizer used in at least one distillation column used in at least one of stages (A), (B), and (C).

ACCESSION NUMBER: 2006:708180 CAPLUS
 DOCUMENT NUMBER: 145:145521
 TITLE: Process for the catalytic epoxidation of an olefin using hydrogen peroxide in the presence of methanol with improved energy balance
 INVENTOR(S): Gobbel, Hans-Georg; Schultz, Henning; Schultz, Peter; Patrascu, Renate; Schulz, Malte; Weidenbach, Meinolf
 PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; The Dow Chemical Company
 SOURCE: U.S. Pat. Appl. Publ., 28 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| US 2006161010 | A1 | 20060720 | US 2005-36051 | 20050118 |
| WO 2006077183 | A1 | 20060727 | WO 2006-EP50092 | 20060109 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.: US 2005-36051 A 20050118
 OTHER SOURCE(S): CASREACT 145:145521

L8 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The process comprises charging Ti-Si mol. sieve catalyst, solvent, hydrogen peroxide and olefin, reaction, separation of solvent for reuse, separation of un-gasified material from the catalyst before the catalyst returns to the reaction section, separation of un-reacted olefin for reuse, and obtaining epoxidized product.

ACCESSION NUMBER: 2005:532451 CAPLUS
 DOCUMENT NUMBER: 143:175124
 TITLE: Suspension catalyst distillation process for direct epoxidizing alkene
 INVENTOR(S): Du, Zexue
 PATENT ASSIGNEE(S): China Petroleum & Chemical Corporation, Peop. Rep. China
 SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, No pp. given
 CODEN: CNXXEV

DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---------------------|----------|-----------------|----------|
| CN 1542008 | A | 20041103 | CN 2003-122842 | 20030429 |
| PRIORITY APPLN. INFO.: | | | CN 2003-122842 | 20030429 |
| OTHER SOURCE(S): | CASREACT 143:175124 | | | |

L8 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
AB The catalytic system containing Pd(OAc)₂ and peroxy-heteropoly compound [(C₆H₁₃)₄N]₃{PO₄[W(O)(O₂)₂]₄} (THA-PW4) in methanol showed 81.6% selectivity for propylene oxide and propylene conversion of 42.7%, using mol. oxygen as an oxidant in an autoclave reactor at 373 K for 6 h, whereas, Pd(OAc)₂ or THA-PW4 alone showed low conversion. The catalytic system containing Pd(OAc)₂ and THA-PW4 in methanol is reusable by vacuum distillation after the propylene oxidation reaction. X-ray diffraction patterns and Pd K-edge EXAFS indicate that Pd⁰ species formed by the reduction of Pd(OAc)₂ with methanol acts as an active species in propylene epoxidation with mol. oxygen. FT-IR spectra of Pd-THA-PW4 before and after reaction proved that the peroxy oxygen bonds of THA-PW4 could be regenerated in methanol by mol. oxygen in the presence of Pd, but could not be regenerated in acetonitrile. Methanol mol. reacts with oxygen mol. over Pd⁰ species to form a peroxy intermediate HOCH₂OOH, which regenerates the peroxy oxygen bonds of THA-PW4 and achieves catalytic turnover for propylene epoxidation. Because the peroxy intermediate HOCH₂OOH is not stable and finally decomposes to CO_x and H₂O, a part of methanol is co-oxidized. Hydrogen peroxide also probably formed in situ in the catalytic system during the reaction and plays an important role to regenerate the peroxy oxygen bonds of THA-PW4.

ACCESSION NUMBER: 2005:398454 CAPLUS
DOCUMENT NUMBER: 143:99245
TITLE: Direct epoxidation of propylene by molecular oxygen over Pd(OAc)₂-[(C₆H₁₃)₄N]₃{PO₄[W(O)(O₂)₂]₄}-CH₃OH catalytic system
AUTHOR(S): Liu, Yanyong; Murata, Kazuhisa; Inaba, Megumu; Mimura, Naoki
CORPORATE SOURCE: Research Institute for Green Technology, National Institute of Advanced Industrial Science and Technology, AIST, Tsukuba, Ibaraki, 305-8565, Japan
SOURCE: Applied Catalysis, B: Environmental (2005), 58(1-2), 51-59
CODEN: ACBEE3; ISSN: 0926-3373
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:99245
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
AB A method is described for producing an epoxide (e.g., propylene oxide) comprising: (i) preparation of a stream (S₁) containing a compressed liquid alkene (e.g., propylene); (ii) expansion of at least part of the stream (S₁) by heat absorption and at least partial evaporation of the liquid alkene; (iii) reaction of the alkene obtained according to step (ii) with a hydroperoxide (e.g., hydrogen peroxide) in the presence of at least one solvent (e.g., methanol) and at least one catalyst (e.g., titanium silicalite) to obtain a mixture containing the epoxide and the solvent(s).

ACCESSION NUMBER: 2004:902364 CAPLUS
DOCUMENT NUMBER: 141:380278

TITLE: Method for producing an epoxide
 INVENTOR(S): Goebbel, Hans-Georg; Bassler, Peter; Teles, Joaquim
 Henrique; Rudolf, Peter
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
 SOURCE: PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|--|------------------|------------|
| WO 2004092149 | A1 | 20041028 | WO 2004-EP4077 | 20040416 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG | | | | |
| DE 10317520 | A1 | 20041104 | DE 2003-10317520 | 20030416 |
| CA 2522466 | A1 | 20041028 | CA 2004-2522466 | 20040416 |
| EP 1620415 | A1 | 20060201 | EP 2004-727858 | 20040416 |
| R: AT, BE, CH, DE, DK, ES, FR, GE, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK | | | | |
| BR 2004009425 | A | 20060425 | BR 2004-9425 | 20040416 |
| CN 1791587 | A | 20060621 | CN 2004-80013456 | 20040416 |
| US 2006276662 | A1 | 20061207 | US 2005-553516 | 20051014 |
| PRIORITY APPLN. INFO.: | | | DE 2003-10317520 | A 20030416 |
| | | | WO 2004-EP4077 | W 20040416 |
| REFERENCE COUNT: | 5 | THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | |

L8 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Propylene oxide is manufactured from propylene,
 and a hydroperoxide in the presence of catalyst with water or
 alc. as byproduct, which are removed by distillation
 ACCESSION NUMBER: 2004:537699 CAPLUS
 DOCUMENT NUMBER: 142:298351
 TITLE: Distillation process of manufacturing
 propylene oxide
 AUTHOR(S): Anon.
 CORPORATE SOURCE: UK
 SOURCE: Research Disclosure (2004), 481(May), P661 (No.
 481051)
 PUBLISHER: CODEN: RSDSBB; ISSN: 0374-4353
 Kenneth Mason Publications Ltd.
 DOCUMENT TYPE: Journal; Patent
 LANGUAGE: Dutch
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|----------|
| RD 481051 | | 20040510 | RD 2004-481051 | 20040510 |

L8 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The title oxide comprises reacting propene with H₂O₂ in a solvent in the
 presence of a suitable catalyst in order to obtain a mixture (G0)
 of propylene oxide, solvent, unreacted propene,

unreacted H₂O₂ and O, (b) the propylene oxide is separated from the mixture (G0) in such a way that a mixture (G1) of unreacted propene and O is obtained, and (c) the mixture (G1) is utilized or burned and the heat used to generate steam for heating distillation columns.

ACCESSION NUMBER: 2003:117813 CAPLUS
DOCUMENT NUMBER: 138:153937
TITLE: An efficient process for the manufacture of propylene oxide from propene and hydrogen peroxide
INVENTOR(S): Teles, Joaquim Henrique; Rehfinger, Alwin; Berg, Anne; Rudolf, Peter; Rieber, Norbert; Bassler, Peter
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|------------------|------------|
| WO 2003011845 | A1 | 20030213 | WO 2002-EP8487 | 20020730 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| DE 10137543 | A1 | 20030213 | DE 2001-10137543 | 20010801 |
| CA 2455718 | A1 | 20030213 | CA 2002-2455718 | 20020730 |
| AU 2002333286 | A1 | 20030217 | AU 2002-333286 | 20020730 |
| EP 1417192 | A1 | 20040512 | EP 2002-791483 | 20020730 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| BR 2002011574 | A | 20040629 | BR 2002-11574 | 20020730 |
| CN 1538962 | A | 20041020 | CN 2002-815207 | 20020730 |
| MX 2004PA00782 | A | 20040521 | MX 2004-PA782 | 20040126 |
| ZA 2004000765 | A | 20050131 | ZA 2004-765 | 20040130 |
| IN 2004CN00190 | A | 20051209 | IN 2004-CN190 | 20040130 |
| US 2004192946 | A1 | 20040930 | US 2004-485104 | 20040202 |
| PRIORITY APPLN. INFO.: | | | DE 2001-10137543 | A 20010801 |
| | | | WO 2002-EP8487 | W 20020730 |

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
AB In this catalytic process H₂O₂ is produced directly from H and O-containing feeds by contacting them with a phase-controlled supported noble metal catalyst and a suitable organic liquid solvent having a Solvent Selection Parameter (SSP) between 0.14+10⁻⁴ and 5.0+10⁻⁴, at 0-100° and 100-3,000 psig pressure. Unconverted feed gas and organic liquid solvent solution are recovered and recycled back to the reactor along with any recovered catalyst. If desired, the H₂O₂ product can be fed together with an organic chemical feedstock such as propylene and the organic liquid solvent solution into a 2nd catalytic reaction step which oxidizes the feedstock to produce a desired crude oxidized organic product such as propylene oxide. This product can be purified by distillation and recovered from the solvent solution

ACCESSION NUMBER: 2002:595334 CAPLUS
DOCUMENT NUMBER: 137:142559

TITLE: Catalytic direct production of hydrogen peroxide from hydrogen and oxygen feeds
 INVENTOR(S): Zhou, Bing; Rueter, Michael A.; Lee, Lap-keung;
 Pelerine, Bruce P.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S.
 Ser. No. 733,154.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 2002106320 | A1 | 20020808 | US 2001-867190 | 20010529 |
| US 6576214 | B2 | 20030610 | | |
| US 2001016187 | A1 | 20010823 | US 2000-733154 | 20001208 |
| US 6500968 | B2 | 20021231 | | |
| US 2003232004 | A1 | 20031218 | US 2003-431693 | 20030507 |
| US 6919065 | B2 | 20050719 | | |
| PRIORITY APPLN. INFO.: | | | US 2000-733154 | A2 20001208 |
| | | | US 1998-140265 | A2 19980826 |
| | | | US 2001-867190 | A1 20010529 |

L8 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB A process for the continuous production of an olefinic oxide such as propylene oxide by direct catalytic oxidation of an olefin with hydrogen peroxide. The process involves successive reaction, distillation, decomposition, phase separation, condensation and distillation with recycle of various streams to provide improved catalyst life and reaction selectivity.
 ACCESSION NUMBER: 2002:142693 CAPLUS
 DOCUMENT NUMBER: 136:184271
 TITLE: Process for the continuous production of an olefinic oxide
 INVENTOR(S): Forlin, Anna; Paparatto, Giuseppe; Tegon, Paolo
 PATENT ASSIGNEE(S): Enichem S.p.A., Italy
 SOURCE: PCT Int. Appl., 30 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002014298 | A1 | 20020221 | WO 2001-EP9334 | 20010813 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| IT 2000MI1882 | A1 | 20020211 | IT 2000-MI1882 | 20000811 |
| IT 1318680 | B1 | 20030827 | | |
| CA 2416554 | A1 | 20020221 | CA 2001-2416554 | 20010813 |
| AU 200193763 | A | 20020225 | AU 2001-93763 | 20010813 |
| EP 1313722 | A1 | 20030528 | EP 2001-974175 | 20010813 |
| EP 1313722 | B1 | 20040630 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | | |

| | | | | |
|--|----|----------|-----------------|------------|
| IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001013261 | A | 20040113 | BR 2001-13261 | 20010813 |
| AT 270282 | T | 20040715 | AT 2001-974175 | 20010813 |
| JP 2004525073 | T | 20040819 | JP 2002-519440 | 20010813 |
| ES 2219565 | T3 | 20041201 | ES 2001-1974175 | 20010813 |
| IN 2003CN00241 | A | 20050408 | IN 2003-CN241 | 20030210 |
| US 2004181081 | A1 | 20040916 | US 2003-344441 | 20031027 |
| US 7138534 | B2 | 20061121 | | |
| PRIORITY APPLN. INFO.: | | | IT 2000-MI1882 | A 20000811 |
| | | | WO 2001-EP9334 | W 20010813 |

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The invention relates to a method for the production of propylene oxide in the presence of methanol, during which propylene oxide is separated and the remaining methanol-containing mixture is worked up. The invention is characterized in that on working up, methanol is separated from its mixture containing the byproduct Me formate. This provides

a more pure methanol fraction for recycling to the production of propylene oxide from propene and hydrogen peroxide. In an example, recycled methanol containing < 10 ppm Me formate was obtained, compared to 50-120 ppm for a prior-art process. The Me formate content of the produced propylene oxide was < 10 ppm compared to 1000-2500 ppm for the prior-art process.

ACCESSION NUMBER: 2002:31434 CAPLUS
 DOCUMENT NUMBER: 136:86222
 TITLE: Production of propylene oxide
 INVENTOR(S): Teles, Joaquim Henrique; Rehfinger, Alwin; Baszler, Peter; Wenzel, Anne; Reiber, Norbert; Rudolf, Peter
 PATENT ASSIGNEE(S): Basf A.-G., Germany
 SOURCE: PCT Int. Appl., 26 pp.
 CODEN: PIIXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|------------|
| WO 2002002545 | A1 | 20020110 | WO 2001-EP7717 | 20010705 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10032885 | A1 | 20020117 | DE 2000-10032885 | 20000706 |
| CA 2414779 | A1 | 20030106 | CA 2001-2414779 | 20010705 |
| EP 1296969 | A1 | 20030402 | EP 2001-945339 | 20010705 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001012226 | A | 20030506 | BR 2001-12226 | 20010705 |
| RU 2276668 | C2 | 20060520 | RU 2003-103589 | 20010705 |
| TW 588045 | B | 20040521 | TW 2001-90116598 | 20010706 |
| US 2003146080 | A1 | 20030807 | US 2003-312884 | 20030102 |
| US 6849162 | B2 | 20050201 | | |
| IN 2003CN00018 | A | 20050408 | IN 2003-CN18 | 20030103 |
| ZA 2003000103 | A | 20040225 | ZA 2003-103 | 20030106 |
| MX 2003PA00016 | A | 20030925 | MX 2003-PA16 | 20030107 |
| PRIORITY APPLN. INFO.: | | | DE 2000-10032885 | A 20000706 |

WO 2001-EP7717 W 20010705
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
AB The invention relates to a method for the production of propylene oxide, whereby (i) propylene is reacted with hydrogen peroxide in the presence of methanol to form propylene oxide, resulting in a mixture (Gi), comprising propylene oxide, methanol, water, and unreacted hydrogen peroxide, (ii) a second mixture (Gii), comprising methanol, water, and hydrogen peroxide is separated from Gi, yielding a third mixture comprising propylene oxide. Water is separated off from Gii to give a fourth mixture comprising methanol and

Me formate. The process provides for a more complete and economical conversion of hydrogen peroxide than prior-art methods.

ACCESSION NUMBER: 2002:31433 CAPLUS
DOCUMENT NUMBER: 136:86221
TITLE: Production of propylene oxide
INVENTOR(S): Teles, Joaquim Henrique; Rehfinger, Alwin; Bassler, Peter; Wenzel, Anne; Rieber, Norbert; Rudolf, Peter
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|--|------------------|------------|
| WO 2002002544 | A1 | 20020110 | WO 2001-EP7716 | 20010705 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| DE 10032884 | A1 | 20020124 | DE 2000-10032884 | 20000706 |
| AU 200189624 | A | 20020114 | AU 2001-89624 | 20010705 |
| CA 2414756 | A1 | 20030106 | CA 2001-2414756 | 20010705 |
| EP 1296968 | A1 | 20030402 | EP 2001-969340 | 20010705 |
| EP 1296968 | B1 | 20041103 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001012218 | A | 20030506 | BR 2001-12218 | 20010705 |
| AT 281442 | T | 20041115 | AT 2001-969340 | 20010705 |
| RU 2277089 | C2 | 20060527 | RU 2003-103590 | 20010705 |
| TW 583181 | B | 20040411 | TW 2001-90116609 | 20010706 |
| US 2003144535 | A1 | 20030731 | US 2003-312862 | 20030102 |
| US 6756503 | B2 | 20040629 | | |
| IN 2003CN00017 | A | 20050408 | IN 2003-CN17 | 20030103 |
| ZA 2003000106 | A | 20040121 | ZA 2003-106 | 20030106 |
| MX 2003PA00017 | A | 20030925 | MX 2003-PA17 | 20030107 |
| PRIORITY APPLN. INFO.: | | | DE 2000-10032884 | A 20000706 |
| | | | WO 2001-EP7716 | W 20010705 |
| REFERENCE COUNT: | 2 | THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | |

AB Propylene oxide is manufactured in a three-stage process from propylene, oxygen, and hydrogen. The first reaction step is the oxidation of isopropanol/water with mol. oxygen in a reaction-distillation column (approx. 500 psi and 350° F.), to produce hydrogen peroxide and acetone. The column is configured with an upper high liquid holdup reaction zone and a lower short residence time stripping zone. Inert gas circulating through the column effects separation of the hydrogen peroxide as part of the bottoms fraction and acetone as part of the distillate fraction. The liquid part of the distillate fraction comprising acetone, isopropanol and water is then reacted with hydrogen (second reaction step) under reactive-distn conditions to convert the contained acetone back to isopropanol for subsequent recycle to the first reaction step. The third reaction step is the epoxidn. of propylene (in stoichiometric excess) with the hydrogen peroxide solution, typically in the presence of a titanium silicalite catalyst. The reaction is performed in a series of fixed bed adiabatic reactors with intercooling. Product separation is by conventional distillation. Unreacted propylene is recycled to the epoxidn. step and water/isopropanol to the first reaction step.

ACCESSION NUMBER: 2002:23864 CAPLUS
DOCUMENT NUMBER: 136:70254
TITLE: Three-stage process for manufacturing of propylene oxide
INVENTOR(S): Gelbein, Abraham P.
PATENT ASSIGNEE(S): Chemical Research & Licensing Company, USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|---|-----------------|------------|
| US 6337412 | B1 | 20020108 | US 2001-841427 | 20010424 |
| WO 2002085876 | A1 | 20021031 | WO 2001-US49838 | 20011228 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2002245164 | A1 | 20021105 | AU 2002-245164 | 20011228 |
| PRIORITY APPLN. INFO.: | | | US 2000-199564P | P 20000425 |
| | | | US 2001-841427 | A 20010424 |
| | | | WO 2001-US49838 | W 20011228 |
| REFERENCE COUNT: | 17 | THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | |

L8 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
AB An epoxidn. process is presented for producing epoxides (e.g., propylene oxide) by reacting an olefin (e.g., propylene) with a peroxide (e.g., hydrogen peroxide) in the presence of a catalyst (e.g., particulate titanium silicalite), which process consists of introducing the peroxide only in the first reactor, the subsequent reactor(s) not being supplied with fresh peroxide but only with the peroxide which is present in the medium derived from the preceding reactor and which has not been consumed in said preceding reactor. A process flow diagram is presented.

ACCESSION NUMBER: 2002:10456 CAPLUS

DOCUMENT NUMBER: 136:54202
 TITLE: Epoxidation process for the preparation of epoxides from reaction of peroxides with alkenes using at least two reactors containing fluidized beds of titanium silicalite catalyst
 INVENTOR(S): Balthasart, Dominique
 PATENT ASSIGNEE(S): Solvay (Societe Anonyme), Belg.
 SOURCE: PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002000637 | A1 | 20020103 | WO 2001-EP7273 | 20010626 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| FR 2810983 | A1 | 20020104 | FR 2000-8355 | 20000628 |
| FR 2810983 | B1 | 20040521 | | |
| CA 2412546 | A1 | 20020103 | CA 2001-2412546 | 20010626 |
| AU 200187559 | A | 20020108 | AU 2001-87559 | 20010626 |
| EP 1299371 | A1 | 20030409 | EP 2001-967093 | 20010626 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001011973 | A | 20030701 | BR 2001-11973 | 20010626 |
| JP 2004501908 | T | 20040122 | JP 2002-505385 | 20010626 |
| RU 2256656 | C2 | 20050720 | RU 2003-102385 | 20010626 |
| ZA 2002010159 | A | 20040315 | ZA 2002-10159 | 20021213 |
| MX 2002PA12665 | A | 20030514 | MX 2002-PA12665 | 20021218 |
| US 2003109726 | A1 | 20030612 | US 2002-311308 | 20021227 |
| US 6677467 | B2 | 20040113 | | |
| US 2004039216 | A1 | 20040226 | US 2003-650730 | 20030829 |
| US 6838571 | B2 | 20050104 | | |

PRIORITY APPLN. INFO.: FR 2000-8355 A 20000628
 WO 2001-EP7273 W 20010626
 US 2002-311308 A1 20021227

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB An epoxidn. method for making epoxides (e.g., propylene oxide) is described which comprises reacting an olefin (e.g., propylene) with a peroxide (e.g., aqueous hydrogen peroxide) in the presence of a catalyst (e.g., TS-1 zeolite) and a solvent (e.g., methanol) in at least two reactors arranged in series each containing part of the catalyst, where the novelty of the method consists on carrying out two epoxidn. reactions in series with an intermediate distillation so as to minimize the formation of byproducts. A process flow diagram is presented.

ACCESSION NUMBER: 2002:10454 CAPLUS
 DOCUMENT NUMBER: 136:54200
 TITLE: Epoxidation process and catalysts for producing epoxides from alkenes and peroxides using serial reactors
 INVENTOR(S): Balthasart, Dominique
 PATENT ASSIGNEE(S): Solvay (Societe Anonyme), Belg.
 SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2002000635 | A1 | 20020103 | WO 2001-EP7271 | 20010626 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| FR 2810982 | A1 | 20020104 | FR 2000-8354 | 20000628 |
| FR 2810982 | B1 | 20020927 | | |
| CA 2411790 | A1 | 20020103 | CA 2001-2411790 | 20010626 |
| AU 200176368 | A | 20020108 | AU 2001-76368 | 20010626 |
| EP 1299369 | A1 | 20030409 | EP 2001-953991 | 20010626 |
| EP 1299369 | B1 | 20050330 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001011939 | A | 20030513 | BR 2001-11939 | 20010626 |
| JP 2004501906 | T | 20040122 | JP 2002-505383 | 20010626 |
| AT 292125 | T | 20050415 | AT 2001-953991 | 20010626 |
| RU 2259362 | C2 | 20050827 | RU 2003-102384 | 20010626 |
| ES 2239151 | T3 | 20050916 | ES 2001-1953991 | 20010626 |
| ZA 2002010153 | A | 20040315 | ZA 2002-10153 | 20021213 |
| MX 2002PA12471 | A | 20030606 | MX 2002-PA12471 | 20021216 |
| US 2003187285 | A1 | 20031002 | US 2002-297927 | 20021219 |
| US 6723861 | B2 | 20040420 | | |

PRIORITY APPLN. INFO.: FR 2000-8354 A 20000628
 WO 2001-EP7271 W 20010626

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB A process for producing oxidized organic chemical products such as propylene oxide from various organic chemical feedstocks using as oxidant directly produced hydrogen peroxide (H₂O₂) intermediate oxidizing agent. The hydrogen peroxide intermediate is directly produced from hydrogen and oxygen feeds plus a suitable solvent in a first catalytic reaction step using an active supported phase-controlled noble metal catalyst at reaction conditions of 0-100°. temperature and 300-3,000 psig pressure. An organic chemical feedstock such as propylene together with the hydrogen peroxide intermediate and solvent solution are fed into a second catalytic reactor maintained at 0-150°. temperature and 15-1,500 psig pressure and oxidized to produce a desired crude oxidized organic product such as propylene oxide, which is purified by distillation steps and recovered from the solvent solution

ACCESSION NUMBER: 2001:618412 CAPLUS
 DOCUMENT NUMBER: 135:167154
 TITLE: Process for selective oxidation of organic feedstocks with hydrogen peroxide
 INVENTOR(S): Zhou, Bing; Rueter, Michael A.
 PATENT ASSIGNEE(S): Hydrocarbon Technologies, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S. 6,168,775.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 2001016187 | A1 | 20010823 | US 2000-733154 | 20001208 |
| US 6500968 | B2 | 20021231 | | |
| WO US 6168775 | B1 | 20010102 | US 1998-140265 | 19980826 |
| US 2002106320 | A1 | 20020808 | US 2001-867190 | 20010529 |
| US 6576214 | B2 | 20030610 | | |
| US 6500969 | B1 | 20021231 | US 2001-14068 | 20011211 |
| US 2003232004 | A1 | 20031218 | US 2003-431693 | 20030507 |
| US 6919065 | B2 | 20050719 | | |
| PRIORITY APPLN. INFO.: | | | US 1998-140265 | A2 19980826 |
| | | | US 2000-733154 | A2 20001208 |
| | | | US 2001-867190 | A1 20010529 |

L8 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB A continuous process for the epoxidation of olefins (e.g., methyloxirane from propylene) with hydrogen peroxide using a product-stream predistilln. step and unit is described and a process flow diagram presented.

ACCESSION NUMBER: 2001:581493 CAPLUS

DOCUMENT NUMBER: 135:137842

TITLE: Process for the epoxidation of olefins using a product-stream predistillation step and unit

Hofen, Willi; Thiele, Georg; Moller, Alexander

INVENTOR(S): Degussa A.-G., Germany

PATENT ASSIGNEE(S): Eur. Pat. Appl., 10 pp.

SOURCE: CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO EP 1122248 | A1 | 20010808 | EP 2000-102544 | 20000207 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| CA 2399129 | A1 | 20010809 | CA 2001-2399129 | 20010203 |
| WO 2001057010 | A1 | 20010809 | WO 2001-EP1166 | 20010203 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| BR 2001008063 | A | 20021105 | BR 2001-8063 | 20010203 |
| EP 1254126 | A1 | 20021106 | EP 2001-911586 | 20010203 |
| EP 1254126 | B1 | 20030702 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| AT 244231 | T | 20030715 | AT 2001-911586 | 20010203 |
| JP 2003521544 | T | 20030715 | JP 2001-556860 | 20010203 |
| ES 2202281 | T3 | 20040401 | ES 2001-1911586 | 20010203 |
| ZA 2002005200 | A | 20030929 | ZA 2002-5200 | 20020627 |
| NO 2002003553 | A | 20020725 | NO 2002-3553 | 20020725 |
| US 2003114694 | A1 | 20030619 | US 2002-203184 | 20021004 |
| US 6646141 | B2 | 20031111 | | |
| PRIORITY APPLN. INFO.: | | | EP 2000-102544 | A 20000207 |
| | | | WO 2001-EP1166 | W 20010203 |

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
AB Propylene is oxidized at low cost by H₂O₂ in the presence of titanosilicate catalysts, wherein the hydrogen peroxide is prepared via alkylanthraquinone method without distillation and contains ≤150 ppm of stabilizers (based on 100% H₂O₂). Thus, propylene oxide was obtained by using H₂O₂ (phosphoric acid and pyrophosphoric acid content 100 ppm) prepared via hydrogenation of 2-amyl anthraquinone, showing H₂O₂ conversion 95% and propylene oxide selectivity 90%.

ACCESSION NUMBER: 2000:62626 . CAPLUS

DOCUMENT NUMBER: 132:108453

TITLE: Manufacture of propylene oxide with efficiency

INVENTOR(S): Kondo, Osamu; Kurai, Toshiyuki; Kijima, Yasuhiko

PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000026439 | A | 20000125 | JP 1998-189130 | 19980703 |
| PRIORITY APPLN. INFO.: | | | JP 1998-189130 | 19980703 |

L8 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB Propylene oxide obtained by an epoxidn. process which uses methanol as solvent, hydrogen peroxide as oxidant, and titanium-containing zeolite as catalyst may be effectively treated to remove acetaldehyde by subjecting the crude epoxidn. reaction product to fractional distillation. The methanol solvent is utilized during such distillation to lower the relative volatility of the acetaldehyde impurity, thereby making it possible to obtain a bottoms fraction containing substantially all the acetaldehyde. Purified propylene oxide having a reduced acetaldehyde concentration is removed as an overhead stream. Water may also be effectively separated from the propylene oxide using this procedure.

ACCESSION NUMBER: 1999:126887 CAPLUS

DOCUMENT NUMBER: 130:182867

TITLE: Propylene oxide purification

INVENTOR(S): Rueter, Michael A.

PATENT ASSIGNEE(S): Arco Chemical Technology, L.P., USA; Arco Chemie Technologie Nederland B.V.

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9907690 | A1 | 19990218 | WO 1998-EP4693 | 19980727 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, | | | | |

CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 N0 US 6024840 A 20000215 US 1997-908604 19970808
 CA 2300083 A1 19990218 CA 1998-2300083 19980727
 AU 9890697 A 19990301 AU 1998-90697 19980727
 EP 1003733 A1 20000531 EP 1998-942636 19980727
 EP 1003733 B1 20020403
 R: BE, DE, ES, FR, GB, IT, NL
 BR 9811144 A 20000718 BR 1998-11144 19980727
 JP 2001512721 T 20010828 JP 2000-506194 19980727
 ES 2174476 T3 20021101 ES 1998-942636 19980727
 MX 200001292 A 20001030 MX 2000-1292 20000204
 PRIORITY APPLN. INFO.: US 1997-908604 A 19970808
 WO 1998-EP4693 W 19980727

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Propylene oxide (I) is prepared from propylene (II) and H₂O₂ using solvents which form a heterogeneous azeotrope with water and are inert to II or H₂O₂ in the presence of organic monocarboxylic acids when removing introduced or produced water with the solvents and I. Thus, propionic acid 168.7, ClCH₂CH₂Cl (III) 765.0, and H₃BO₃ 3.0 g/h were preheated at 70° and charged in the 10th section (from the top) of a reactor equipped with a distillation tower having a partial condenser, 43.1 g/h 60% aqueous H₂O₂ was preheated at 70° and charged in the 20th section of it, and then 63.8 g/h II and 120 L/h N₂ were introduced to the reactor from the bottom, then the bottom of the reactor was heated at 70° in an oil bath. In the reaction, the gas phase containing I, unreacted II, N₂, and III was eliminated via partial condenser and the liquid phase containing H₂O₂, propionic acid, and the catalysts was eliminated from the bottom of the reactor. After 10 h reaction, the gas from the partial condenser comprised 21.4 g/h I (98.0% selectivity) and 47.9 g/h unreacted II.

ACCESSION NUMBER: 1989:232259 CAPLUS
 DOCUMENT NUMBER: 110:232259
 TITLE: Preparation of propylene oxide
 INVENTOR(S): Ueno, Kaoru; Watanabe, Keisuke; Masuda, Takayoshi.
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 64000079 | A | 19890105 | JP 1987-154299 | 19870623 |
| JP 07084448 | B | 19950913 | | |
| PRIORITY APPLN. INFO.: | | | JP 1987-154299 | 19870623 |

L8 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 AB In the title process, C₃H₆ [115-07-1] is epoxidized by a crude solution of EtC(O)OOH [4212-43-5], prepared from H₂O₂ and EtCO₂H in the presence of very small amts. of strongly acidic catalysts with continuous azeotropic distillation of water. Thus, adding 260 g/h 50% ClCH₂CH₂Cl solution of EtCO₂H and 40.3 g/h 70.7% H₂O₂ containing 0.33% H₂SO₄ and 0.5% bipicolinic acid to a reactor held at 90° with azeotropic distillation of H₂O gave a 93.5% yield of EtC(O)OOH as a 25.1% solution. This solution was added at 281 g/h together with 98.3 g/h C₃H₆ to a reactor held at 50°/10 bar to give 350 g/h 13.2% propylene oxide [75-56-9] solution, a yield of 98.3%.

ACCESSION NUMBER: 1983:17188 CAPLUS
 DOCUMENT NUMBER: 98:17188
 TITLE: Continuous preparation of propylene

INVENTOR(S): oxide
 Lecoq, Jean Claude; Pralus, Michele; Schirmann, Jean
 Pierre
 PATENT ASSIGNEE(S): Produits Chimiques Ugine Kuhlmann, Fr.
 SOURCE: Eur. Pat. Appl., 20 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------------------|------|----------|-----------------|------------|
| EP 61393 | A1 | 19820929 | EP 1982-400477 | 19820316 |
| EP 61393 | B1 | 19841031 | | |
| R: BE, CH, DE, FR, GB, IT, NL | | | | |
| FR 2502620 | A1 | 19821001 | FR 1981-5811 | 19810324 |
| FR 2502620 | B1 | 19831110 | | |
| ES 510697 | A1 | 19830201 | ES 1982-510697 | 19820323 |
| CA 1182122 | A1 | 19850205 | CA 1982-399119 | 19820323 |
| JP 57169477 | A | 19821019 | JP 1982-45725 | 19820324 |
| JP 02004223 | B | 19900126 | | |
| PRIORITY APPLN. INFO.: | | | FR 1981-5811 | A 19810324 |

| => FIL STNGUIDE | SINCE FILE | TOTAL |
|--|------------|---------|
| COST IN U.S. DOLLARS | ENTRY | SESSION |
| FULL ESTIMATED COST | 117.23 | 117.44 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| CA SUBSCRIBER PRICE | ENTRY | SESSION |
| | -20.28 | -20.28 |

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FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jul 20, 2007 (20070720/UP).

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  0 521790
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  0 BASSLER
L10    0 BASSLER

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  0 OXIRANE
  0 "DIVIDING"
  0 "WALL"
  0 "DIVIDING WALL"
    ("DIVIDING" (W) "WALL")
L11    0 OXIRANE AND "DIVIDING WALL"
  
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| => log hold | SINCE FILE | TOTAL |
|--|------------|---------|
| COST IN U.S. DOLLARS | ENTRY | SESSION |
| FULL ESTIMATED COST | 1.26 | 118.70 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |

CA SUBSCRIBER PRICE

0.00

-20.28

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 10:07:22 ON 24 JUL 2007